

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office
Address COMMISSIONER OF PATENTS AND TRADEMARKS P.O. Bex 1450 Alexandria, Vigunia 22313-1450 www.uspto.gov

CONFIRMATION NO. ATTORNEY DOCKET NO. FIRST NAMED INVENTOR FILING DATE APPLICATION NO. 1583 NSC1P202/P04892 Michael Richard Ehlert 01/15/2002 10/051,984 06/04/2003 22434 7590

BEYER WEAVER & THOMAS LLP P.O. BOX 778 BERKELEY, CA 94704-0778

EXAMINER PATEL, ISHWARBHAI B

PAPER NUMBER ART UNIT

2827

DATE MAILED: 06/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

TECHNOLOGY CENTER 2800

		Application No.		Applicant(s)
•		10/051,984		EHLERT ET AL.
Office Action Summary		Examiner		Art Unit
		Ishwar (I. B.) Pa	tel	2827
The MAILI Period for Reply	NG DATE of this communication a	appears on the cover	sheet with the c	correspondence address
THE MAILING DA - Extensions of time ma after SIX (6) MONTHS - If the period for reply s - If NO period for reply i - Failure to reply within - Any reply received by	STATUTORY PERIOD FOR REPATE OF THIS COMMUNICATION by be available under the provisions of 37 CFR from the mailing date of this communication. Specified above is less than thirty (30) days, a result of second above, the maximum statutory period the set or extended period for reply will, by state of the Office later than three months after the main justment. See 37 CFR 1.704(b).	N. 1.136(a). In no event, howeverty within the statutory minded will apply and will expire the cause the application to	imum of thirty (30) days SIX (6) MONTHS from become ABANDONE	nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133).
1) Responsiv	e to communication(s) filed on 2	5 February 2003 .		
2a)☐ This action	n is FINAL . 2b)⊠	This action is non-fi	nal.	
	application is in condition for allo accordance with the practice und is			
4)⊠ Claim(s) <u>1</u> -	-12,14-19 and 25-27 is/are pendi	ing in the application	1.	
4a) Of the a	bove claim(s) is/are withd	rawn from considera	ation.	
5) Claim(s)	is/are allowed.			
6)⊠ Claim(s) <u>1-</u>	12,14-19 and 25-27 is/are rejected	ed.		
7)⊠ Claim(s) <u>8-</u>	12 is/are objected to.			
8) Claim(s)	are subject to restriction and	d/or election require	ment.	
pplication Papers				
9) The specific	ation is objected to by the Exami	ner.		
10)⊠ The drawing	(s) filed on <u>25 February 2003</u> is/a	are: a)□ accepted o	b)⊠ objected to	by the Examiner.
<u> </u>	nay not request that any objection to			
11) The propose	d drawing correction filed on	is: a)□ approve	ed b) disappro	oved by the Examiner.
	, corrected drawings are required in	• •	tion.	
12) The oath or	declaration is objected to by the	Examiner.		
riority under 35 U.S	S.C. §§ 119 and 120			
13)☐ Acknowledo	gment is made of a claim for fore	eign priority under 35	5 U.S.C. § 119(a	a)-(d) or (f).
a)□ All b)□	Some * c) ☐ None of:			
1. Certif	fied copies of the priority docume	ents have been rece	ived.	
2. Certif	fied copies of the priority docume	ents have been rece	ived in Applicati	ion No
а	es of the certified copies of the p pplication from the International ched detailed Office action for a I	Bureau (PCT Rule	17.2(a)).	
14)☐ Acknowledgr	nent is made of a claim for dome	estic priority under 3	5 U.S.C. § 119(e) (to a provisional application
a) 🗌 The tra	nslation of the foreign language ment is made of a claim for dom	provisional applicati	on has been red	ceived.
attachment(s)		-		
	s Cited (PTO-892) on's Patent Drawing Review (PTO-948) ire Statement(s) (PTO-1449) Paper No(s			y (PTO-413) Paper No(s) Patent Application (PTO-152)

DETAILED ACTION

Drawings

1. The corrected or substitute drawings were received on February 25, 2003. These drawings overcome the prior rejection. However, upon further review, few new deficiencies found as described below.

The drawings are further objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the plurality of ceramic layers, and electronic component embedded within the plurality of ceramic layers, as claimed in all the claims must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

- 2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

 The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 3. Claims 2 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 2827

In claims 2 and 10, which depend upon claims 1 and 8 respectively, the applicant is claiming a "the barrier cap prevents the first electrically conductive material within the through-hole from making contact with the second electrically conductive material forming the contact pad", however, the structure, barrier cap, is already claimed in claims 1 and 8 respectively, and is not clear what additional structural limitation is added in claims 2 and 10.

Claim Rejections - 35 USC § 103

- 4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 5. Claims 1-7 and 15-19, 25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawakami et al., US Patent No. 5, 847,326, hereafter Kawakami, in view of Kumagai et al, US Patent No. 5,043,223, hereafter, Kumagai.

Regarding claim 1,2 and 15, Kawakami discloses a circuit structure having plurality of ceramic layers, wherein a first one of the ceramic layers comprises:

a through hole that passes through the first ceramic layer, the through being filled with a first electrically conductive material, which forms a via (through hole 13 in a

Art Unit: 2827

ceramic layer 12 and filled with conductive paste of Ag, see figure 1, column 2, line 58 to column 3, line 10);

a contact pad formed from a second electrically conductive material that is different from the first electrically conductive material (pattern of Au surface layer wiring conductors 17, see figure 1, column 3, line 10-20);

a barrier cap formed in contact with and between the via and the contact pad, the barrier cap being formed from a third electrically conductive material that is different from the first and second electrically conductive material (Au/Ag intermediate metal layer, see figure 1, column 3, line 10-20); but

fails to disclose a dielectric ring covering a peripheral portion of the contact pad and an adjacent portion of the dielectric material layer surface immediately surrounding the contact pad, such that any solder that is applied to the contact does not contact the peripheral portion of the contact pad or the ceramic material.

However, such coating of solder mask or resist is known in the art for avoiding short circuit between the pads and further, protecting the outer surface for environmental degradation.

Kumagai discloses such glass coating for covering the resistive element and pads, overcoat glass 6, figure 1a, column 8, line 60-65.

Art Unit: 2827

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the structure of Kawakami with suitable coating on the pads, as taught by Kumagai, in order to protect the top surface and to avoid short circuit between the adjacent contact pads.

Regarding claims 3 and 16, the combination of Kawakami and Kumagai, further discloses the dielectric material is glass; see Kumagai, overcoat glass coating 6, column 8, line 60-65.

Regarding claim 4 and 17, though Kawakami does not disclose, the dielectric material partially embedded within the surface of the first ceramic layer, it will depend upon the design of the via hole and the contact pad and the specific requirement, such as to cover the contact pad periphery only or to cover the whole surface of the ceramic layer including any component on the surface.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the combination structure of Kawakami and Kumagai with dielectric material partially embedded in order to just cover the periphery of the contact pads only instead of the whole surface of the ceramic layer.

Regarding claims 5 and 18, Kawakami does not explicitly disclose the circuit structure is mounted on printed circuit board, it is common to have the structure

Art Unit: 2827

installed on the printed circuit board such as mother board for interconnection of the device with other component in the assembly such as for power or signal connections.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the combination structure of Kawakami and Kumagai installed on a printed circuit board in order to interconnection with other component of the assembly.

Regarding claim 6 and 19, though Kawakami does not disclose the contact pad embedded into the surface of the ceramic layer, such design is known in the art to just expose the pad for connection and not the conductor pattern to have better control of the short circuit without even additional mask or resist. Further this design of embedding the contact pad will provide a better planar surface for electrical connection. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the combination structure of Kawakami and Kumagai with contact pad embedded in the ceramic layer in order to have better planner surface for external connection.

Regarding claim 7 though the combination structure of Kawakami and Kumagai is disclosing three different materials for via hole, intermediate / barrier cap and contact pad, not discloses explicitly as claimed by the applicant, first electrically conductive material filling the through hole is palladium-silver, second electrical conductive material forming the contact pad is platinum-gold and the third electrically conductive material

Art Unit: 2827

forming the barrier cap layer is gold. However, the crux of providing an intermediate layer is to have a better contact of via hole material with the contact pad and any suitable combination can be used to have the better and reliable continuity and all the materials as claimed are known in the art.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the combination structure of Kawakami and Kumagai with combination of materials as claimed in order to have better and reliable electrical continuity.

Regarding claims 25 and 27, though the combination structure of Kawakami and Kumagai does not disclose the solder ball formed within the dielectric ring. Such solder ball connections are well known in the art for connecting the component circuit board or for connecting an assembly package to a circuit board.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the combination structure of Kawakami and Kumagai with the solder ball formed within the dielectric ring in order to connect the circuit assembly with other circuit board.

Art Unit: 2827

Allowable Subject Matter

6. Claims 8-12 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, for claim 10, and the drawing rejections, set forth in this Office action.

Response to Arguments

7. Applicant's arguments with respect to claims 1 and 15 have been considered but are most in view of the new ground(s) of rejection. New secondary prior art of Kumagai discloses the resist covering the periphery of the contact pads.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Berger et al., discloses substrate with contact region flush with the ceramic layer, see figure 2.

Traskos et al., disclose intermediate ceramic substrate with contact region flush with the ceramic layer, see figure 7.

Fukasawa discloses solder ball on the pad, see figure 2A and 3B, the circuit board can be of either organic material or inorganic material, column 2, line 50-55.

Branchevsky discloses solder ball on pad, see prior art figure 1 and 2.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ishwar (I. B.) Patel whose telephone number is (703) 305 2617. The examiner can normally be reached on M-F (8:30 - 5).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L Talbott can be reached on (703) 305 9883. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305 3431 for regular communications and (703) 305 7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 0956.

ibp May 24, 2003 U KAMAND CUNEO SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 2800

Notice of References Cited

	Application/Control No. 10/051,984	Applicant(s)/Patent Under Reexamination EHLERT ET AL.		
E	Examiner	Art Unit		
1	shwar (l. B.) Patel	2827	Page 1 of 1	

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	Α	US-5,043,223	08-1991	Kumagai et al.	428/432
	В	US-6,528,145	03-2003	Berger et al.	428/156
	С	US-5,329,695	07-1994	Traskos et al.	29/830
	D	US-5,844,782	12-1998	Fukasawa, Hiroyuki	361/774
	E	US-6,408,511	06-2002	Branchevsky, Shaul	29/843
	F	US-			
	G	US-			
	Н	US-			
	_	US-			
	J	US-			
	К	US-			
	L	US-			
	М	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	0					
	Р					
	ď					
	R					
	S					
	Т					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	υ	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)

Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

NOTIFICATION OF REQUESTED NEW FORMAT FOR AMENDMENTS AND/OR RESPONSES FILED IN <u>ART UNITS 1634, 2827, AND 2834</u>

The United States Patent and Trademark Office (USPTO) is currently conducting a prototype of electronic application processing and examination in Art Units 1634, 2827, and 2834. To facilitate the prototype, the following changes in format for Amendments and/or Responses filed in those Art Units are requested.

Requested Format of Amendments and Responses during the prototype.

Each section of an Amendment and/or Response (e.g., Claim Amendments, Specification Amendments, Remarks) should begin on a separate sheet to facilitate separate indexing and scanning of the document. For example, in an Amendment containing a.) introductory comments, b.) amendments to the claims, c.) amendments to the specification, and d.) remarks, each of these sections should begin on a separate sheet. For each amendment filed in Art Units 1634, 2827, and 2834, the requirement to provide two sets of claims (a clean version and a marked up version), as set forth in 37 CFR 1.121(c), will be waived where the following format is employed.

Each amendment that includes a change to an existing claim, or submission of a new claim shall be made by submitting a summary document with the status of all claims and the text of all pending claims as follows:

- (1) The status of all of the claims in the application, including any previously canceled or withdrawn claims, must be summarized in each amendment document. Status is indicated by a parenthetical expression following the claim number (e.g. (original), (currently amended), (previously amended), (canceled), (withdrawn), or (new)). The text of all pending claims must be submitted each time any claim is amended. Canceled and withdrawn claims may be indicated by only the claim number and status.
- (2) All claims being currently amended must be submitted with markings to indicate the changes that have been made. The changes in any amended claim may be shown by strikethrough (for deleted matter) or underlining (for added matter), or by any equivalent marking system.
- (3) The text of pending claims not being amended must be presented in each amendment document in clean version, i.e., without any markings. Any claim presented in clean version will constitute an assertion that it has not been changed relative to the immediate prior version.
- (4) A claim may be canceled by merely providing an instruction to cancel. Any claims added by amendment must be indicated as (new).
- (5) All of the claims in each amendment paper must be presented in ascending numerical order. Consecutive canceled or withdrawn claims may be aggregated into one statement (e.g. Claims 1 5 (canceled)).

Amendments to the specification are performed in the conventional manner (37 CFR 1.121(b)).

Patent Copies

Additionally, applicants and practitioners will no longer be required to provide copies of U.S. Patents and Published U.S. Patent Applications cited in any Information Disclosure Statement (IDS) submitted to the USPTO during the prototype and in applications assigned to the three art units. It is requested that eIDSs be used to file all IDS papers for applications before the prototype Art Units. Similarly, during the prototype, copies of U.S. Patents and Published U.S. Patent Applications cited by an examiner during prosecution of an application will not be provided to applicants in Office actions from these Art Units. These documents are available from the USPTO web site, www.uspto.gov for free download. Cited foreign patents and published applications and non-patent literature will be mailed by conventional processing.

The above requested new format and procedures are applicable during the prototype only to applications assigned to Art Units 1634, 2827, and 2834. Any questions regarding these requirements may be directed to image.processing@uspto.gov or one of the Supervisory Patent Examiners of these Art Units 1634—Gary.Jones@uspto.gov: 2827—Daye.Talbott@uspto.gov or 2834—Nestor.Ramirez@uspto.gov.

Example:

Claims 1-5 (canceled) (Note: consecutive canceled or withdrawn claims may be aggregated)

Claim 6 (withdrawn)

Claim 7 (previously amended): A bucket with a handle,

Claim 8 (currently amended): A bucket with a green blue handle.

Claim 9 (withdrawn)

Claim 10 (original): A bucket with a wooden handle.

Claim 11: (new): A bucket with plastic sides and bottom.

- (4) A claim may be canceled by merely providing an instruction to cancel. Listing a claim as canceled will constitute an instruction to cancel. Any claims added by amendment must be indicated as (new) and shall not be underlined.
- (5) All of the claims in each amendment paper must be presented in ascending numerical order. Consecutive canceled or withdrawn claims may be aggregated into one statement (e.g., Claims 1 5 (canceled)).

Example of listing of claims (use of the word "claim" before the claim number is optional):

Claims 1-5 (canceled)

Claim 6 (withdrawn)

Claim 7 (previously amended): A bucket with a handle.

Claim 8 (currently amended): A bucket with a green blue handle.

Claim 9 (withdrawn)

Claim 10 (original): The bucket of claim 8 with a wooden handle.

Claim 11 (canceled)

Claim 12 (re-presented – formerly dependent claim 11) A black bucket with a wooden handle.

Claim 13 (previously added): A bucket having a circumferential upper lip.

Claim 14 (new): A bucket with plastic sides and bottom.

B) Amendments to the specification:

Amendments to the specification must be made by presenting a replacement paragraph or section marked up to show changes made relative to the immediate prior version. An accompanying clean version is not required and should not be presented. If a substitute specification is being submitted to incorporate extensive amendments, both a clean version (which will be entered) and a marked up version must be submitted as per current 37 CFR 1.125.

C) Amendments to drawing figures:

Drawing changes must be made by presenting replacement figures which incorporate the desired changes and which comply with § 1.84. An explanation of the changes made must be presented in the remarks section of the amendment. Any replacement drawing sheet must include all of the figures appearing on the immediate prior version of the sheet, even though only one figure may be amended. The figure or figure number of the amended drawing should not be labeled as "amended." If the changes to the drawing figure(s) are not accepted by the examiner, applicant will be notified of any required corrective action in the next Office action. No further drawing submission will be required, unless applicant is notified.

Any questions regarding the submission of amendments pursuant to the revised practice set forth in this flyer should be directed to the following legal advisors in the Office of Patent Legal Administration (OPLA): Elizabeth Dougherty (Elizabeth.Dougherty@uspto.gov), Gena Jones (Eugenia.Jones@uspto.gov) or Joe Narcavage (Joseph.Narcavage@uspto.gov). For information on the waiver or legal aspects of the prototype, please contact Jay Lucas (Jay.Lucas@uspto.gov), Senior Legal Advisor (PCTLA) or Rob Clarke (Robert.Clarke@uspto.gov), Senior Legal Advisor (OPLA). Alternatively, further information may be obtained by calling OPLA at (703) 305-1616.

^{*} Revised Notice: See Sec. B) for changes relating to substitute specifications, and Sec. C) for changes on replacement drawing practice.

Revised Notice* AMENDMENTS MAY NOW BE SUBMITTED IN REVISED FORMAT

The United States Patent and Trademark Office (USPTO) is permitting applicants to submit amendments in a revised format as set forth below. Further details of this practice are described in AMENDMENTS IN A REVISED FORMAT NOW PERMITTED, signed January 31, 2003, expected to be published in Official Gazette on February 25, 2003 (Notice posted on the Office's web site at

http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/revamdtprac.htm). The revised amendment format is essentially the same as the amendment format that the Office is considering adopting via a revision to 37 CFR 1.121 (Manner of Making Amendments). The revision to 37 CFR 1.121 (if adopted) will simplify amendment submission and improve file management. The Office plans to adopt such a revision to 37 CFR 1.121 by July of 2003, at which point compliance with revised 37 CFR 1.121 will be mandatory.

Effective immediately, <u>all</u> applicants may submit amendments in reply to Office actions using the following format. Participants in the Office's electronic file wrapper prototype receiving earlier notices of the revised practice may also employ the procedures set out below.

REVISED FORMAT OF AMENDMENTS

Begin on separate sheets:

Each section of an Amendment (e.g., Claim Amendments, Specification Amendments, Drawing Amendments, and Remarks) should begin on a separate sheet. For example, in an amendment containing a.) introductory comments, b.) amendments to the claims, c.) amendments to the specification, and d.) remarks, each of these sections must begin on a separate sheet. This will facilitate the process of separately indexing and scanning of each part of an amendment document for placement in an electronic file wrapper.

Two versions of amended part(s) no longer required:

The current requirement in 37 CFR 1.121(b) and (c) to provide two versions (a clean version and a marked up version) of each replacement paragraph, section or claim will be waived where an amendment is submitted in revised format below. The requirements for substitute specifications under 37 CFR 1.125 will be retained.

A) Amendments to the claims:

Each amendment document that includes a change to an existing claim, or submission of a new claim, must include a complete listing of all claims in the application. After each claim number, the status must be indicated in a parenthetical expression, and the text of each claim under examination (with markings to show current changes) must be presented. The listing will serve to replace all prior versions of the claims in the application.

- (1) The current status of all of the claims in the application, including any previously canceled or withdrawn claims, must be given. Status is indicated in a parenthetical expression following the claim number by one of the following: (original), (currently amended), (previously amended), (canceled), (withdrawn), (new), (previously added), (reinstated formerly claim #_), (previously reinstated), (re-presented formerly dependent claim #_), or (previously re-presented). The text of all pending claims under examination must be submitted each time any claim is amended. Canceled and withdrawn claims should be indicated by only the claim number and status.
- (2) All claims being currently amended must be presented with markings to indicate the changes that have been made relative to the immediate prior version. The changes in any amended claim should be shown by strikethrough (for deleted matter) or underlining (for added matter). An accompanying clean version is not required and should not be presented. Only claims of the status "currently amended" will include markings.
- (3) The text of pending claims not being amended must be presented in clean version, i.e., without any markings. Any claim text presented in clean version will constitute an assertion that it has not been changed relative to the immediate prior version.

¹ The Office's Electronic File Wrapper prototype program is described in USPTO ANNOUNCES PROTOTYPE OF IMAGE PROCESSING, 1265 Off. Gaz. Pat. Office 87 (Dec. 17, 2002) ("Prototype Announcement"), and applies only to Art Units 1634, 2827 and 2834.

The United States Patent and Trademark Office has changed certain mailing addresses!

Effective May 1, 2003

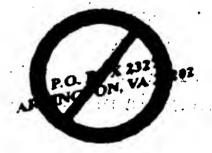
Use the address provided in this flyer after May 1, 2003 for any correspondence with the United States Patent and Trademark Office (USPTO) in patent-related matters to organizations reporting to the Commissioner for Patents.

DO NOT USE the Washington DC 20231 and P.O. Box 2327 Arlington, VA 22202 addresses after May 1, 2003 for any correspondence with the USPTO even if these old addresses are indicated in the accompanying Office action or Notice or in any other action, notice, material, form, instruction or *other* information.

Correspondence in patent-related matters to organizations reporting to the Commissioner for Patents must now be addressed to:



Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450



Special Mail Stop designations to replace Special Box designations

Also effective May 1, 2003, the USPTO is changing the special Box designations for Patents and Trademarks to corresponding Mail Stop designations (e.g., "Box 4" will now be "Mail Stop 4").

For further information, see Correspondence with the United States Patent and Trademark Office, 68 Fed. Reg. 14332 (March 25, 2003). A copy of the Federal Register notice is available on the USPTO's web site at http://www.uspto.gov/web/menu/current.html#register

A listing of specific USPTO mailing addresses (See Patents – specific) will be available on the USPTO's web site on April 15, 2003 at http://www.uspto.gov/main/contacts.htm

Parsons filing correspondence with the Office should check the rules of practice, the Official Gazette, or the Office's Internet Web site (www.uspto.gov) to determine the appropriate address and Mail Stop Designation (if applicable) for all correspondence being delivered to the USPTO via the United States Postal Service (USPS)

Questions regarding the content of this flyer should be directed to the Inventor Assistance Center at (703) 308-4357 or toll-free at 1-800-786-9199

Organization Bldg./Room U. S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE
WASHINGTON, DC 20231
IF UNDELIVERABLE RETURN IN TEN DAYS

PRINTING PRINTING TO FICIAL MAIL.

FOR FORTH TO STORE TO STARE TO

OFFICIAL BUSINESS

AN EQUAL OPPORTUNITY EMPLOYER

BEYER WEAV 7R & THOMAS LLP P.O. BOX 778 BERKELEY, CA 94' ,4-0778